

ABSTRACT OF THE DISCLOSURE

The magnetic material for magnetic refrigeration of the present invention is characterized by exhibiting, in a certain temperature region, preferably, only in part of a temperature region from 200 K to 350 K, an inflection point at which a second order differential coefficient of a magnetization curve changes from positive to negative with respect to a magnetic field, within the range of this magnetic field formed using a permanent magnet unit. This magnetic material of the present invention can generate a low temperature by using a relatively low magnetic field, by transferring the entropy between the electron spin system and the lattice system near the temperature at which an inflection point appears on the magnetization curve. Examples of the magnetic material meeting this condition are La(Fe,Si)_{13} , $(\text{Hf,Ta})\text{Fe}_2$, $(\text{Ti,Sc})\text{Fe}_2$, and $(\text{Nb,Mo})\text{Fe}_2$, each containing 50 to 60 atomic % of transition metals such as Fe.